

Use with tune cheat sheet:

 **Sepi's FH5 Tuning Cheat Sheet** (hover over and click the link)

## INTRO AND NEED-TO-KNOWS

This was originally a mostly-finished script for a tuning guide video, but due to some pgg employees having a hate boner, 900+ of my tunings are no longer accessible and i stopped working on it. It would be a shame to see the information in this video go to waste, so the script has been made publicly available. If you want to steal it, go ahead, and maybe send some bitcoins:

bc1qyjygrc8d8k4dacll48kup7rqwmtjq0dkpf0fv6

If you want to listen to a narration of this script:

<https://www.youtube.com/watch?v=ah0DdtnQpu4>

(Other than gearing, the footage should also be accurate)

Forza horizon 5 features over 700 cars, and each one of them can be upgraded and tuned in many ways, which makes tuning a complicated aspect. The game itself does not teach you how to tune, and when it does, it often ends up misleading players. Most people end up downloading premade tunes from other players, which are often garbage. So here is everything you need to know about tuning in forza horizon 5. You might have already seen other tuning videos and maybe tried using tuning calculators. Forget about all of them. If you really want to go fast in horizon 5, this guide is the real deal.

~~Before we begin, there are a few things you should know first. It should be obvious that some tuning methods don't work on every car, so there will be three indicators on top of the screen, and those are car class, race type, and drivetrain; so you know which tips work on which cars. Small tips will be written on the screen for a few seconds if needed.~~

You will also be hearing a few terms throughout this video, which i will try to explain as simply as possible when we get to it. The two terms you will be hearing the most are oversteer and understeer. Oversteer looks like this: You will end up sliding the rear end and eventually spinning out. Oversteer is not always a bad thing. Each car has a limit of grip and will oversteer at some point regardless of tuning. Understeer looks like this: It is when your car doesn't turn as much as you want it to. [understeer is technically when

your front tires lose grip, but that doesn't happen often in forza. in this game, you often find yourself not being able to fully utilize the front grip and end up being far from the limit of your traction. for the purpose of this tuning guide, this is what i will be referring to as understeer] Oversteer and understeer are the opposite of each other. You will be trying to aim at the middle of these 2, which is where you will find the most grip. Most tunes in horizon 5 aim more towards oversteer, as it is more manageable than understeer, but you should still pay attention to have enough rear grip. It is also worth noting that forza horizon 5 is not a simulation. There are many things that work really well in the game, but make no sense at all in real life. With that said, let's get into the upgrades.

The most important stat in the upgrade menu is PI, which is short for performance index. Your car's PI value determines your car class. The higher this number, the faster your car generally is. Some upgrades are more efficient than others, and give you more performance relative to the PI value they add. If i'm mentioning a cost for an upgrade, it is always related to the PI. Most of the other stats in the upgrade menu are inaccurate and basically mean nothing, even the simulated values. The only stats you should be looking for are weight and power.

I will cover all the upgrades, but some cars might have limited upgrade choices. Let's begin

## UPGRADES

### Conversion tab:

#### Engine Swap

We start at the conversion tab in the upgrade menu, and the first option will usually be engine swap. Most cars have different sets of engines available, and some engines can be seen more than the others. Unfortunately, some of these engines are more PI efficient than others, meaning: they give you more horsepower for the same PI cost. Here is a list of the most common PI-efficient engines and the cars you can usually find them on:

- 1.6L I4 VVT (Honda)
- 2.0L I4 VVT (Common low horsepower - Worse than 1.6L)
- 2.0 F4 Turbo Rally (Subaru & Rear Engine - Peak power at ~5k rpm)
- 3.2L I6 (Common low to mid horsepower)
- 3.0L V8 Racing (Track Toys)
- 3.5L V8 (Ferrari)

4.0L V8 (BMW)

6.2L V8 LS3 (Common mid to high horsepower - Worse than F4TR & I6 without centrifugal)

6.2L V8 AMG (Mercedes & Saloons)

Racing 7.2L V8 (Common high horsepower)

5.2L V10 (Supercars)

8.4L V10 (Common high horsepower - Worse than 6.2L V8 without centrifugal)

Racing V12 (Common high horsepower)

There are cars that have efficient engines when stock, but they are rare. Horsepower and weight are the most important things when looking for engines, but you should sometimes consider powerband as well, more on that in gear tuning section. DONT EVER LOOK AT THE IN-GAME DYNO GRAPH, IT'S RARELY ACCURATE. ALWAYS CHECK WITH TELEMETRY. IF I SEE ONE MORE PERSON MENTION THE IN-GAME GRAPH...

## **Drivetrain Swap**

Next up on the upgrades is drivetrain swaps. Drivetrain tells you which wheels are being powered and driven by the engine. Front-wheel drive cars have the option to swap to rear or all-wheel drive, but it's not worth it since front-wheel drive is an efficient drivetrain for road racing. Rear-wheel drive cars have the option to swap to all-wheel drive, which is easier, but not always faster. Generally, the higher the class is, the more efficient all-wheel drive swap becomes. In most S2 and some S1 cars, all wheel drive can even drop your PI, which makes it a great choice. But if swapping to all-wheel drive adds a lot of PI, then it's mostly not worth it, especially in lower class cars. All-wheel drive cars also have the option to swap to rear-wheel drive, but it's not worth it. All wheel drive is the best drivetrain for dirt and cross country racing, but other drivetrain can be viable in B class and below.

## **Aspiration**

Next up we have aspirations. If you see centrifugal supercharger, use it. It's the most efficient engine upgrade, and one of the most efficient upgrades overall. Other aspirations are just as efficient as most of the other engine upgrades. They are generally used when you can't reach your desired power without them as they add weight. For engines that use twin turbo stock, it is better to switch to another aspiration if possible.

## **Bodykit**

Next up you might have the option to swap in a bodykit. Bodykits improve your handling and allow for wider tires, but they can also add drag. Drag is how much air resistance your car encounters when going at high speeds. Basically, more drag equals less top speed. Most widebody kits are extremely PI-efficient and it is best to install them.

## **Aero and Appearance tab:**

**Refer to tune cheat sheet:** [📄 Sepi's FH5 Tuning Cheat Sheet](#)

Now we move onto the aero tab. Here, you can find upgrades that add downforce to your car. Downforce is what keeps your car planted to the ground by using air to push your car to the ground. The faster you go, the more downforce and grip your car will have. Keep in mind that more downforce will also add more drag, which lowers your top speed.

Anyways, back to the upgrades. For most cars, you will have the option to add forza front splitter or rear wing. These upgrades add downforce to the front or the rear end of your car. In terms of PI, rear wing drops your PI in front and all-wheel drive cars. Front splitter adds lots of PI, but it will be less costly at lower classes, sometimes even dropping your PI in C and D class. Using these aero parts, there are 3 viable combinations you can go for: No aero, Rear aero only, or full aero.

Full aero is a must for S2 class and above, but you don't really have to worry about it since most of the cars in this class come with adjustable front and rear aero by default. For S1 class, full aero is extremely common on both road and dirt. But there are cars that provide more than enough downforce by default, in which case, you can get away by using no aero. Some cross country cars in S1 class come with lots of dirt grip and drag by default, so it's best not to install any aero on those cars as well.

In A class, full aero builds are still common for road, but rear-aero-only builds are frequent as well. This is because unlike front aero, installing rear aero actually drops PI in front and all-wheel drive cars, so if you have more than enough handling, installing rear aero is a great way to lower your PI. For dirt racing, full aero and no aero are the most common, but rear aero builds can be just as viable, so you have to try out for yourself and find out. For cross country however, no aero is the most common since there are less roads and more straights on the tracks.

For B class and below, no aero builds start to replace rear aero builds for road. This is because front aero has a much lower cost in these classes, so if you went with rear aero, you might as well go with front aero, but that would add lots of drag, and if your car doesn't have a lot of power, no aero is going to be the better build for tracks with longer straights. For dirt racing, rear aero builds are slightly more common. This is because front grip becomes less important in B class and below dirt racing. For cross country, rear aero builds are most common on circuits, and no aero builds are most

common on sprints. D and C class is similar to B class road racing, mostly because front aero will also start to drop your PI.

And that is everything you need to know about aero. There are also other parts you can add in the same categories, but most of them will only add or lower weight or drag. Some parts can add handling, but they are extremely rare.

## Tires and Rims tab:

### Tire Compound

Refer to tune cheat sheet: [📄 Sepi's FH5 Tuning Cheat Sheet](#)

Now we move onto the tires tab. The first and most important upgrade is tire compound, which like aero, is a large topic. First of all, there are some unique tire compounds that you cannot upgrade to in every car. The most notable one is the stock tires on extreme track toys. These tires are grippier than slicks, and for some reason, have the same cost. Some modern sports cars and retro super cars have efficient stock compounds as well. Stock tires aside, i'd like to take 2 more tire compounds out of the equation. The first one is snow tires. This compound is only efficient on 1 hotwheels track, and is mainly used for drifting. Offroad compound is better than snow in every other aspect and costs just as much. The next one is sport tires. This compound costs as much as rally tires and is worse in every way.

Anyways, with those compounds out of the way, we can rank other tire compounds by 4 categories, and those are: Forward grip, angular grip, dirt grip, and highspeed penalty. There is also rain penalty, but there is barely any rain in mexico.

We start off with forward grip, which is how much grip your tires provide in a straight line. Obviously, drag tires provide the most forward grip as it is the only thing that matters in drag racing. Semi-slicks is the next best compound in terms of straight line grip, but it is nowhere near drag tires. Semi-slicks is closely followed by slicks and rally tires, which perform similarly. We then have vintage race, offroad, street, and finally, drift and whitewall at the bottom.

Angular grip is how much grip your tires provide when turning. More angular grip makes your car turn better and improves cornering and response. Up at the first place we have slick tires, which perform much better than any other compound. Drift tires actually perform slightly better than semis and rally. We then have vintage race and offroad that perform similarly, followed by the streets. And at the bottom, we have drag and whitewall tires.

The next category is highspeed penalty. On some tires, the faster you go, the less grip you have. Offroad tires are affected by this the most. There is no real way to test it, but

drag, rally, and vintage tires also seem to have a small penalty, although it's not much and you can safely use them at higher classes. Other tires have little to no penalty. Now we move onto the next category which is dirt grip. All tires actually have more angular grip on dirt than they do on road, but their forward grip is highly reduced, especially on slick and drag tires. Rally tires are affected the least, but they are still nothing compared to offroad tires, which are not affected at all.

There is also rain penalty, which is not important in horizon 5, but if you want to know, semi, rally, and street tires perform the best on rain, with slick, drift, and drag tires performing the worst.

And that is it. Those are all the details about each tire compound. Now here are the most commonly used tire compounds for each class and race type. For dirt and cross country racing, offroad tires are always the best choice. There is literally no reason to use rally tires when they cost more and have less grip on dirt. There is also a budget version of offroad tires that comes stock on old trucks and SUV's, those are also good for lower classes.

For road racing, slick tires are pretty much the only choice for S2 class. Rally tires are the most popular choice for S1 class, but slicks are also pretty common for cars that have lower levels of grip. Semis are slightly less efficient on 2-wheel drive cars, but they are not too bad and are used on some all-wheel drive cars. Drag tires are also a viable choice in high-downforce cars and drift tires can be seen in some powerbuilds. For A class, rally tires continue to dominate and other compounds are rarely used. Slick and drag tires are still a viable choice for front-wheel drive cars. Vintage race and drift tires are also seen in powerbuilds. For B class, stock, street, vintage, and drag tires are common to see in balance builds, with whitewalls being used for powerbuilds. Some front wheel drive grip builds use rally or slick tires, but for most tracks, drag tires are a better choice. For D and C class, stock tires are the most common choice.

And that is everything you needed to know about tire compounds.

## **Tire Width**

Now we move onto the next upgrade. Upgrading front tire width is the least efficient handling upgrade. Only use it for track-specific handling builds or if you have no other options available. [mainly used in s1 offroaders with over 1:1 hp/kg ratio] They are slightly more efficient on rear-wheel drive cars, but try to avoid it in general.

Rear tire width on the other hand, is extremely efficient. For some reason, it lowers your PI on front and all-wheel drive cars. They add PI on rear-wheel drive cars, but they are still worth it.

## **Rim Style & Size**

Now we move onto the rims, which can add or remove weight depending on the car. Heavier rims are slightly more efficient on engines with lower torque. Speaking of torque, it's basically useless in small amounts, so don't bother going for it. [more torque makes it easier to slide on dirt, but you won't really notice it until like 100n-m's of difference]

Next up, we have rim size. Larger front rims usually add pi, but they can also lower it on offroaders. Larger rear rims however, almost always lower your pi, which is a great choice if you want to get the most out of your PI budget. In general, larger rims make your cars more responsive. You will mostly notice it at lower classes, where cars can become extremely sketchy and oversteery with large rims.

## **Track Width**

Next up we have track width. I tested these and they have no notable effect on laptime, but in theory, upgraded front track width should give you better turn-in, but it also has a small PI cost. Upgraded rear track width is usually free, and should give you more straight line stability.

## **Tire Profile**

Just max out the rear to drop pi and gain more grip. Similar to tire width, it doesn't make sense.

## **Drivetrain tab:**

### **Clutch**

That was everything in the tires tab, now we move onto the drivetrain.

First up, we have clutch. This upgrade is useless if you play on manual with clutch, but it will reduce your shift times on manual and automatic.

### **Transmission**

Next up we have transmission. If you have swapped your drivetrain, you will have a 6-speed race transmission by default. You can add more gears if you want, which we will discuss in gear tuning. If you are on your car's default drivetrain, you might also have the option to use street or sport transmission. These 2 transmissions can lower your pi. You should go with the transmission that has the lowest PI cost and provides adequate top speed. Sport transmission is often the best option, but street and stock

transmission are still commonly used. Your gears might be all over the place with a stock transmission, but it is absolutely worth it if the PI cost is low and you don't play on automatic.

## **Driveline**

Next up we have driveline, which can slightly lower your weight.

## **Differential**

And finally, we have differential, which is free, so always upgrade it. It doesn't matter which one you choose as long as all the settings are adjustable.

## **Tires and Rims tab:**

## **Brakes**

That was it for drivetrain, now we move onto platform and handling.

Brakes are not an efficient upgrade and are rarely used, even for full grip builds. If you have problem crashing into walls, you should simply brake earlier and turn on the braking line. There are way too many cars, builds, and tracks in this game and it's not possible for a human to remember the braking point for all of them. Almost every competitive player uses either braking or full driving line. With that said, brakes are mostly seen on old race cars that are upgraded to s2 class.

## **Springs**

Next up we have suspension. Stock suspension on some cars can be good enough. Sometimes, it can be even better than upgraded suspensions, but if not, upgrade to race or rally suspension. Street suspension is rarely used and sport suspension is useless [how 2 spot a lazy tune]. Race suspension is often the best choice for road racing, but on some cars, rally suspension can give you more oversteer and weight transfer while costing less PI. It is usually used on higher class cars and front-wheel drive cars. Rally suspension is the best choice for dirt and cross country racing and it is rare to see an offroad car on race suspension. The main difference between these 2 is that rally suspension is slightly higher, softer, and it is less likely to bottom out when landing jumps. Bottoming out is when you fully compress your springs and run out of suspension travel, which slows you down and makes your car unstable. And that's it for the suspension.



## Anti-Roll Bars (ARB)

Anti-roll bars have a low PI cost and give you lots of tunability, so always upgrade it.

## Rollcage

Next up we have noobcage, which basically stiffens up your suspension and anti-roll bars as a whole. This upgrade is basically useless for road as it adds weight and rarely lowers PI. For offroad racing however, it might improve your dirt grip and make your car more stable. It affects each car differently, but it is really efficient when upgraded by one level on old offroaders and classic race and rally cars at A class.

[for those 14 pgg players out there, rollcage can make your initial launch faster]

## Weight Reduction

And finally, we have weight reduction, which is mostly efficient. Less weight gives you better handling, but you can usually have a better power to weight ratio for the same PI if you have more weight. Weight reduction is a must for A class and above road and dirt racing since cars in these classes have lots of power and acceleration already. For cross country however, heavier cars have an advantage on sprints. They also get slowed down less when hitting props. At B class, weight reduction is still common, but some cars are light enough already and it's best not to go for full weight reduction on them, mostly all-wheel drive dirt cars. Not having full weight reduction is common in B class cross country, unless you are using stock offroad tires. In C and D class, having no weight reduction is a common choice as most of the cars desperately need more power.

## Engine tab:

And that was everything in platform and handling. We now move onto the final category which is engine upgrades. Upgrading centrifugal supercharger is the most efficient engine upgrade if you can afford it. Other engine upgrades are mostly similar. Camshaft is usually the least efficient engine upgrade unless you play on automatic. There are a few engines where upgrading the camshaft is actually more efficient, but they are rare. Keep in mind that camshaft also changes your powerband, so you might actually end up slower despite having more power on paper. Intercooler is slightly more efficient than other upgrades on some engines. Aside from those, you should mostly focus on engine upgrades that reduce weight, like the exhaust and intake manifold. You should still avoid reducing weight on low-class cars. For those, cooling upgrades add weight and are

more efficient. The last upgrade we have is flywheel, which is an inefficient weight reduction.

### Other Upgrade Tips:

Refer to tune cheat sheet: [📄 Sepi's FH5 Tuning Cheat Sheet](#)

And that was every upgrade. In the end, you should be a few PI points below or above your target class. Here are the upgrades you can use to increase or decrease your PI value by just a few points. The higher up on the list they are, the more efficient. It is usually better to finish slightly higher than the target PI as the downgrades are slightly more efficient.

Now we are done with the upgrades. Upon installing parts, you will be presented with 3 important stats. Power and weight, which we already know of, followed by lateral G. This stat is not accurate, but it can give you an estimate on how much grip your car has. Here are the average power to weight ratio stats for balance builds in each class. Non-competitive cars can fall below average, but that's fine and there is nothing you can do about it.

The most common mistake that people make when building cars is opting for more grip instead of power. Most horizon tracks favor power, so unless you intend to use your car on a handling track [or rally adventure dlc], always go for more power if you don't want to get destroyed in online races. Even if you somehow manage to make it up in the corners, you will most likely be roadblocked, which will make your car's biggest advantage useless. With more power however, you can almost always take advantage of it on any straight. Less power gives you a false sense of grip and comfort, but if a car feels good to drive, it doesn't always mean it's faster. Grip builds are usually easier to drive, sure, but they aren't worth being seconds slower than even balance builds on most tracks. With that said, let's move onto tuning. I will be using metric units and conversions will be shown on the screen.

## UPGRADES

**YOU NEED A BASIC UNDERSTANDING OF TUNABLE PARTS IN CARS FOR THIS SECTION, AS THEY WERE SUPPOSED TO BE EXPLAINED THROUGH THE VIDEO. SEARCH UP ANY REAL LIFE OR SIM RACING TUNING GUIDE IF YOU ARE NOT FAMILIAR WITH A**

# PART (JUST DON'T TAKE THEIR TIPS, THEY USUALLY DON'T WORK IN FORZA)

## Tire Pressure tab:

We start at the tires. Less tire pressure will give you more grip, but too low and your tires will gradually overheat and lose grip. More tire pressure gives you more response, especially at higher speeds. Generally, you want this to be as low as possible. On most tires, 1.5 is the best overall value. Semi-slicks might need a tenth or two more. Slick and drift tires are optimal at 1.8, and drag tires should be set to minimum. For dirt and cross country, set tire pressure to minimum as it gives you the most dirt grip. Technically, you should change your tire pressure depending on the track and your car's weight, but it really doesn't matter. Tire pressure makes a really small difference as long as you don't go too extreme. Don't bother with it too much unless you are going for a top time on a specific track.

## Gearing tab:

Next up, we have gearing. You mostly have to tune based on this graph, which looks scary, but it's really simple. Here's how short gears look and sound like. And here's how long gears look and sound like. If you only have the final drive available, then your only concern is the top speed. Make sure your final drive is as short as possible without sacrificing too much top speed. If you are making an online build, here are the horizon tracks in each race type where you can reach the most top speed.

Road: Riviera

Dirt: Baja California

CC: Las Dunas

Street: Carretera Chase

If you have a race transmission, then you can adjust each gear individually. For the first gear, adjust it so your car doesn't stall off the line. If it does, make the first gear shorter. For all wheel drive cars, make sure your car doesn't bounce off the rev limiter too often when launching. If it does, make the first gear longer. Bouncing off the rev limiter in some high class cars and most 2-wheel drive cars is inevitable, so just make sure that you are at a good rev range at really low speed corners. [you can change auto clutch behavior by changing controller layouts. along with launch control, this means your launch wont be the same as everyone else]

For your other gears, we first need to understand the engine's powerband. To start off, your engine only makes the most horsepower at a certain rpm, which is usually at where the redline starts, but you should double check with telemetry. The further away you move from this point, the less horsepower you make. To find the optimal rev range, start at your peak horsepower, and draw a circle from both sides until you hit the max rpm. This is your optimal rev range for most engines. Engines like LS V8 and viper V10 have a wide powerband, which makes them the main choice for cars with long unadjustable transmissions.

Anyways, makes sure your second gear starts inside or close to your optimal rev range when you come out of first gear. If it starts way before it, shorten your gear. Your third gear should be similar to your second gear, only slightly shorter. The graph is a good indicator of this. Once you have figured out your second gear, you can adjust the remaining gears just based on the graph. Here is what the optimal gears look like. If you run out of gears before reaching your optimal top speed, then you will have to lengthen each gear and sacrifice a bit of acceleration. If you have more than enough gears, you can simply decide not to use the remaining final gears.

Now for the gear length. Theoretically, you will stay near your peak horsepower longer on a short gearbox, but you also have to shift more often. With each shift, you momentarily lose acceleration. In forza, short and long gears don't really have a difference as long as you don't go too extreme. For example, you don't need to use all of your 10 gears on an engine with a wide power band. Otherwise, it is mostly personal preference. Most people prefer between 6 to 8 gears. With shorter gears, you have to upshift and downshift more often, which is more difficult, but you are also more likely to end up at a higher rpm in turns, which slightly improves your cornering on some engines. If you are making a track-specific build, you can use this to your advantage. Shorter gears are even more beneficial on dirt as being in the right rpm makes you pull harder out of corners when sliding. Adjust them so you are redlining your car in corners without bouncing off the rev limiter or stalling.

## **Alignment tab:**

Now we move onto alignment. Camber is how much your wheels are angled vertically. Negative camber looks like this, and positive camber looks like this. Your tires deform when taking corners, and by having negative camber, you can make sure that they make as much contact with the road as possible, giving you more grip. Technically, you should open up the telemetry and adjust your camber until you have close to 0 camber on your outside tires when taking corners. That would help a bit on track-specific builds, but for an overall build, there are simply too many different types of corners. Don't bother with it too much and only use it as a tool to tune out understeer or oversteer. For all-wheel drive, start at -0.5 degrees on both front and rear. For rear-wheel drive,

decrease the front to -1. For front-wheel drive, start with -0.3 on front and -1.2 in the rear. For dirt and cross country builds, start with 0.5 on the rear. For higher class cars, use lower values since more camber affects your high-speed grip. On most S2 and some S1 cars, you are simply better off using no camber at all. On road, you can add more negative camber to add more understeer or oversteer [more negative front means more understeer, more negative rear means more oversteer]. Positive camber is rarely seen on road, but it is common for offroad builds. More positive camber on the rear makes it easier to get your car to slide on dirt. Increase it if you are struggling to kick the back end out on dirt.

Toe determines if your wheels are angled inwards or outwards. Positive toe looks like this, and negative toe looks like this. Positive toe on both front and rear can give you more turn-in and make your car more responsive, but it can also make it unstable and twitchy. Use it only if you can't get more oversteer in any other way. Negative toe is useless in forza.

Our final tuning option in this tab is caster angle, which doesn't really make a big difference. More caster gives you more straight line stability and more camber when turning. Just leave it at 7 and don't even think about it.

## **ARB tab:**

Next up we have anti-roll bars, or arb, which controls how much your left and right suspension can differentiate from each other. A really soft arb setup looks like this, and a really stiff one looks like this. For road racing, start with minimum front and maximum rear. This gives you the most response and oversteer. If your car is too oversteery, add some front arb. If your car is still oversteery or you want less response, lower rear arb. 1 on the front and 65 on the rear is the most common value for front and all-wheel drive cars, with maybe a little stiffness added to the front. For rear-wheel drive, it's mostly the same, but stiffer front and softer rear are more common. Generally, stiffening the front is better than softening the rear, but there are cars that benefit from more bodyroll, most notably some powerbuilds. For dirt and cross country, arb's affect how much response you want out of the car when sliding, and plays a smaller role in overall understeer and oversteer. For a smooth driving experience, you could try 10 and 30, but if you want maximum response, go with 65 on both front and rear. With stiffer settings, your car will react quicker to your steering adjustments, which allows for faster corrections, but it also makes it easier to overcorrect and either spin out or lose your slide. 1 and 65 is still a common setting for offroad cars that simply refuse to slide, but they usually have a stiffer front to avoid lifting the rear inside wheels, which is common in some cross country cars. Add more front arb if that happens.

## **Springs tab:**

Now we move onto the springs, which controls how much weight is transferred under acceleration and braking. Really soft springs look like this, and really stiff ones look like this. Forza favors a relatively soft suspension setting. For road, start with 75 on both front and rear and go a bit stiffer or softer on heavier and lighter cars. More stiff settings give you more more response, but they also make the car more unstable over bumps so try to avoid it if you can. Stiff settings are generally used in front-wheel drive cars and unresponsive cars. You could also use these settings to add under or oversteer, but after some point, they will start to have less of an effect and you will end up making your car unnecessarily unstable. Generally, settings over 100 and below 50 are rare for race suspension. For rally suspension however, it is slightly different. This suspension is soft by default, so you can get away by using even the maximum stiffness settings. I will skip spring settings for offroad racing until we reach damping. Ride height is just how much distance sits between your car and the ground. Max ride height is mostly better in forza. It gives you more weight transfer and more oversteer, and it is less likely to set your car off by bottoming out. For every type of race, start with a maxed out ride height. For road, try to keep it even on both front and rear. However, lowering rear ride height is a great way to add more rear grip and more turn-in. It adds mid-corner understeer, but it's totally worth it and i often find myself lowering rear ride height by at least a centimeter or two, especially on rear-wheel drive cars. For front-wheel drive and lower-class powerbuilds, just go full squat. It doesn't make sense, but it just makes them faster for some reason. Lowering rear ride height is also a great option if your inside wheels are almost lifting off the ground and you don't want to increase your arb's. Lowering both front and rear ride height is rare, but it is mostly used on no-aero cars that lack high-speed grip for their class.

## **Damping tab:**

Now, onto damping, which doesn't really make a big difference on road. Set bump stiffness to 3, and rebound between 2 to 4 times the bump. Anything more or less and you make the car more unstable over bumps and elevation changes, but you might get more response as a result. If you are really desperate, you could even try more bump and rebound stiffness. You can also use these settings to tune in under or oversteer. It somewhat acts like a secondary settings for your suspension, but it won't make too big of a difference. For dirt and offroad racing however, damping plays a much bigger role. Bump stiffness controls the rate of your suspension compression when going over bumps. Softer settings will compress quicker, which is what you want as it makes your car more stable over bumps, but too soft and your suspension bottoms out too frequently. Bottoming out on jumps will also result in a reduction in speed, which is crucial for cross country. Increase bump if that happens.

Rebound controls the rate of which your suspension decompresses after being compressed. Softer settings rebound quicker, but too soft and your car bounces up upon hitting the road. So if your car is too bouncy over bumps, just increase the rebound. If your car feels too stiff, it might be because either your suspension is constantly bottoming out as a result of high rebound or your bump stiffness is too high. Looking at suspension telemetry can give you a good idea. Keep in mind that each car has a different suspension. Some cars will behave strangely no matter how you tune them.

As for the settings, rebound stiffness is usually 2.5 to 5 times the bump stiffness. Start with 3 bump and 12 rebound, which works fine for most cars. On proper rally cars with good suspension, you can take advantage of soft settings like 1 or 2 bump and over 10 rebound, but on some older cars, you might need something like 6 bump and 15 rebound if you don't have much suspension travel. It is rare to have different front and rear settings unless your car bounces up from one side too frequently. For your springs, start by keeping them as soft as possible, and make sure front and rear have the same value. Stiffening up the springs is like adding more bump and rebound altogether. It can make your car more responsive on dirt, but for some reason, it also makes you more likely to bottom out, so try to keep them as soft as possible. Stiffening suspension on offroad is mostly used on cars that are too floaty or jelly.

## **Aero tab:**

Now we move onto aero. More aero provides more downforce to the front or the rear of your car, but it also adds more drag. For road racing, front aero is basically free grip, so max it out. The added drag is only a concern in really slow car classes, where you have to adjust it depending on the track and car's default values. Rear aero depends on the drivetrain. Front-wheel drive cars don't really need much rear aero, and you can almost always get away with minimum. For all-wheel drive cars at A class and below, rear aero won't really add handling and is often kept at minimum to minimize drag and add more oversteer. For S1 and above, rear aero should be slightly lower than front aero. Keep in mind that some cars have some level of front or rear downforce by default, so you might have to go lower or higher. If your rear aero is too high, your car will understeer at higher speeds. If your rear aero is too low, the rear of your car will feel loose at higher speeds. Adjust rear aero until you are in between these 2. For rear-wheel drive cars, rear aero is often more than front aero, especially for powerbuilds, where you should max out the rear aero. If your car has rear-aero only, you should use minimum, except for cars that have unadjustable front downforce by default. And that was it for road racing. [lighter cars generally need more rear aero]

At S1 and above, rear aero is much more important. [front still maxed out] You will have to use as much rear aero as you do on the front. Rear aero is often maxed out at S2



class. Only lower it if your car really struggles to slide. Same thing goes for A class, although having less rear aero is more common since rear grip is less important and drag becomes more noticeable. For B class and below, aero is basically useless. Rear aero is only added to decrease PI. Use minimum rear, and minimum front if you have it. Same thing goes for cross country.

## **Brake tab:**

Now we move onto brakes. First of all, you should know that this slider is inversed. Moving slider towards the rear will actually increase braking on the front. With that said, moving the slider towards front can get you more turn-in while braking, especially on dirt. Moving the slider towards rear can help with stability under braking on some higher class cars. As for braking force, using less pressure can help reduce lockups when using abs on. For abs off, more pressure can lower your braking distance, but it will also make trailbraking harder. Keep it between 100 and 140. Anything above that and you have a high chance of locking up.

## **Differential tab:**

Now we move onto differential, or dif. In a corner, your outside wheels rotate faster than your inside wheels, which is exactly what a dif allows you to do. Having dif at 100% is like having no dif at all and your left and right wheels will rotate at the same speed all the time. Having dif at 0% does the opposite and your wheels can move at independent speeds from each other. You can set different dif lock settings for both acceleration and deceleration. Dif accel applies the lock when you are on the throttle, and dif decel applies the lock when you are off the throttle. For all-wheel drive cars, this is what you normally see: You have accel and decel settings for both front and rear, along with a center dif.

Start with 100-0-100-10-75 for road. Having more dif accel makes your car pull harder around the corner in forza, so having more dif on both front and rear will make your car oversteer, especially at low-speed corners. [too much front accel will only result in understeer in cars with tiny front tires relative to the rear (such as boneshaker)] If your car is pulling too hard and losing traction, lower front accel. If that still happens, lower rear decel along with center dif. Having less dif decel will give you more lift-off oversteer. If your car slides too much when you let off the throttle, add more rear decel. If that still happens, slightly add more front decel. Having more decel will also make it less likely to lock up your wheels when braking, but it will also make your car more understeery off-throttle. Having center dif towards the rear will send more power to the rear wheels, making the car behave more like a rear-wheel drive car, which makes it more oversteery, especially at higher speeds. If the rear is too loose and the car feels pointy,




then you will have to decrease dif center. This will make the car more stable and often improves your low-speed grip. It is rare for the dif center value to go below 65 or above 85 for road.

On dirt and cross country however, you need all your tires to pull you out of low speed corners equally as much. Start with 65, and only increase it if you get lots of understeer on corner exits. The most common dif values for offroad racing are between 55 and 75. Dif locks on dirt are pretty much the same as road, although you generally need more dif decel as some cars are more prone to oversteer off the throttle

For rear-wheel drive cars, there is only option for dif accel and decel on the rear wheels. Generally, the more grip and less power you have, the more accel value you need. S2 cars and grip builds in lower classes usually use max. Balance builds and high class powerbuilds are often between 50 and 80. Other powerbuilds and lower class balance builds are between 25 and 50. Decel is usually at 0 if you have enough aero, and if not, slightly increase it to avoid locking up the rear wheels.

Front-wheel drive cars are similar to rear-wheel drive, but this time, you have dif options for the front wheels. Grip builds are often near a hundred, drag tire builds are around 50, balance builds slightly less, and powerbuilds at around 20.

And that's pretty much everything there is to horizon 5 tuning. **Check the tune**

**cheat sheet:**  **Sepi's FH5 Tuning Cheat Sheet**. Just using these starter settings alone will give you better tunes than any tuning calculators, and it takes much less time. You should still run your cars around a track and fine tune it further if you have the time.